

St. Bartholomew's Hospital



"Æquam memento rebus in arduis
Servare mentem."

—Horace, Book ii, Ode iii.

JOURNAL.

VOL. XLII.—No. 6.]

MARCH 1ST, 1935.

PRICE NINEPENCE.

CALENDAR.

- Fri., Mar. 1.—Lord Horder and Sir Charles Gordon-Watson on duty.
Medicine: Clinical Lecture by Dr. Graham.
Sat., „ 2.—Rugby Match *v.* Moseley. Away.
Association Match *v.* Old Malvernians. Home.
Mon., „ 4.—Special Subjects: Lecture by Mr. Bedford Russell.
Semi-Final Inter-Hospitals Hockey Cup. Bart.'s *v.*
Thomas's. Away.
Tues., „ 5.—Dr. Hinds Howell and Mr. Wilson on duty.
Wed., „ 6.—Surgery: Clinical Lecture by Mr. Roberts.
Fri., „ 8.—Dr. Gow and Mr. Girling Ball on duty.
Medicine: Clinical Lecture by Lord Horder.
Sat., „ 9.—Rugby Match *v.* Exeter. Away.
Association Match *v.* Old Wykehamists. Home.
Hockey Match *v.* Reading University. Away.
Mon., „ 11.—Special Subjects: Lecture by Mr. Scott.
Tues., „ 12.—Dr. Graham and Mr. Roberts on duty.
Fri., „ 15.—Prof. Wits and Prof. Gask on duty.
Sat., „ 16.—Rugby Match *v.* London Irish. Home.
Association Match *v.* London Welsh. Away.
Tues., „ 19.—Lord Horder and Sir Charles Gordon-Watson on duty.
**Last day for receiving matter for the
April issue of the Journal.**
Fri., „ 22.—Dr. Hinds Howell and Mr. Wilson on duty.
Sat., „ 23.—Association Match *v.* Southgate Wanderers. Away.
Tues., „ 26.—Dr. Gow and Mr. Girling Ball on duty.
Fri., „ 29.—Dr. Graham and Mr. Roberts on duty.
Sat., „ 30.—Rugby Match *v.* Torquay. Away.
Association Match *v.* Old Carthusians. Home.

EDITORIAL.

RIDDLES and rarities have always fascinated mankind. The commonplace, however important it may be, can never compete with them in commanding attention. In few instances is this so true as it is in medical research, for by discovery and experiment a certain standard of success is created and accepted, and the work is then focussed on more interesting and less irksome problems. In his thirst for exploration and conquest, the worker tends to neglect those aspects which are deemed so ordinary, and yet which so seriously affect the people. Suddenly attention is drawn to the unsatisfactory state of affairs and a call for revival is made. The recent interest that has been aroused in both the medical and the lay press in the

poor results of the treatment of fractures is a good example of this fact.

The methods and principles of treatment date from the dawn of medicine and the ages have wrought little change. The skeleton of the Neanderthal man shows a fracture of the left ulna; effective splints have been found in Egypt of a period, the Fifth Dynasty, at least five thousand years old; and the Ebers Papyrus, fifteen centuries before Christ, contains evidence of an extensive knowledge of successful treatment. Little advance has been made, but the Great War brought a revival and the influence of Sir Robert Jones produced a highly trained organization, reducing the period and extent of the disability to a minimum. That the effects of this revival have largely disappeared is shown by the figures in the Report of the B.M.A. Committee on Fractures published last month.

The fault lies largely in a lack of organization, and the comparison of the results of cases from the few highly organized clinics with those treated in a more or less haphazard manner reveals a state of affairs that must cause concern to the whole profession. In 276 cases treated by the latter, there was permanent disability in 37% as compared to 1% in an organized clinic, and a total summated period of incapacity of 13,206 weeks, compared to 4440 weeks. The loss shows a wastage of 168 working years in these few cases, of over £13,000 in weekly compensation payments, and of about £22,000 in wages. The whole of this disparity can be attributed to the lack of organization. The essentials given in the Report are summed up under four headings: segregation of cases, continuity of treatment, after-care and adequate "follow-up" measures, and unity of control.

In this Hospital these principles are followed in the main, and are referred to by the Committee as representative of one type of organized service. Each of the surgical units holds a Fracture Clinic once a week in the Surgery. This is conducted by the Chief Assistant,

and is attended by the dressers and, occasionally, by the house surgeon. The original injury is treated by the Casualty House Surgeon or by the House Surgeon on duty, and is then passed on to the Clinic. Cases which have been admitted to the general wards are also passed on to the care of the Clinic.

The Report recommends the formation of a specialized service under the control of one surgeon, with the help of such surgeons as are interested in the Clinic. Special accommodation should include X-ray theatre, a plaster and splint room, and a record room for the Almoner, as well as the usual examination room. After the preliminary treatment the patient attends a daily clinic until a satisfactory primary result is assured, and then weekly until discharged, to be watched by an effective "follow-up" service.

The suggestions deserve very careful consideration, and opportunities for experiment will be forthcoming with the changes that will follow the removal of the Medical School to Charterhouse Square.

* * *

The Dean has sent us the following interesting letter received by him, and we hope that its example may be followed by many:

February 9th, 1935.

MY DEAR GIRLING BALL (or should I not address you officially as Mr. DEAN?),

It is with the greatest satisfaction that I have this day signed the power of attorney asking my stockbrokers to transfer at their earliest opportunity the £5000 Consols into the H Act of the Medical College in the Bank of England Books. I feel this is but a poor return for all the benefits I received in having been a student for my whole course of training to pass the Qualifying Examinations at the time I was in the School. That was from October, 1870, to September, 1876. And in addition the immense advantage it was to have been in constant touch (when in practice in South Kensington) with the various members of the staff at St. Bartholomew's, such as Sir James Paget, followed by Sir Thomas Smith, up to the more recent times when Sir Anthony Bowlby, Sir D'Arcy Power and your present surgical senior, namely Sir Holburt Waring, were always at my command for help by consultation. If I could only persuade all past students who have reached the ripe age of 75 years or more to be bold and daring as I have, by sacrificing a comparatively small amount of capital from their savings in obtaining an annuity, and thus setting free quite large sums of capital which could not be better used than in building up the new school of the Hospital which is in progress, and must ultimately be of greater repute than ever it was even in the past! Again my best wishes for the successful progress of the Medical College of St. Bartholomew's Hospital in the City of London.

Yours most sincerely,

"AN OLD BART'S MAN."
[J. K. B.]

* * *

Alterations have been commenced on the site of the new School. The Chemistry and Physics Laboratories are being adapted, and a new laboratory for 120 students is being built. The main building is altered to accommodate the Physiology Department and a new single-story structure is being erected. It is hoped that these will be ready for the Autumn Term. The Headmaster's house is to be converted to accommodate the Anatomy

Department at a cost of £25,000, and a Resident Block will then be built.

* * *

The following gentlemen have been nominated to House Appointments from May 1st, 1935:

Junior House Physicians—

Lord Horder	C. A. Hinds Howell.
Prof. L. J. Witts	D. C. Reavell.
Dr. C. M. Hinds Howell	B. Thorne Thorne.
Dr. A. E. Gow	M. A. Danino.
Dr. G. Graham	H. S. Brodribb.

Junior House Surgeons—

Prof. G. E. Gask	F. E. Wheeler.
Sir Charles Gordon-Watson	J. G. Youngman.
Mr. Harold Wilson	E. W. Bintliffe.
Mr. W. Girling Ball	R. H. Dale.
Mr. J. E. H. Roberts	E. B. Z. Masterman.

Intern Midwifery Assistant (Resident). S. J. Hadfield.

Intern Midwifery Assistant

(Non-Resident) R. J. C. Sutton.

Extern Midwifery Assistants { A. R. Pope.*
D. MacCarthy.†

H.S. to Throat and Ear Department C. W. John.

Junior H.S. to Throat and Ear J. R. Hill.*

Department A. H. Pirie.†

H.S. to Ophthalmic Department C. H. Bateman.

H.S. to Skin and Venereal Departments B. M. Merriman.*

(Non-Resident) A. R. Pope.†

H.S. to Orthopaedic Department A. C. Kanaar.

H.P. to Children's Department J. Smart.

Senior Resident Anaesthetist B. Rait-Smith.‡

Junior Resident Anaesthetists { J. H. West.
G. Blackburn.

Non-Resident Anaesthetist F. H. Masina.

Casualty House Physicians { R. M. Noordin.*
J. H. L. Conway-Hughes.†

Casualty House Surgeons { G. L. Bohn.†
H. M. McGladdery.*

Casualty House Surgeons F. G. Ward.†

* 3 months, May. † 3 months, August. ‡ 1 year.
Others for 6 months.

* * *

Sir Holburt Waring, receiving the baronetcy conferred on him in the New Year's Honours, chose the title "of St. Bartholomew's", on account of his long association with this Hospital. This is the first occasion on which such a title has been used in connection with the Hospital.

* * *

Personalities. No. 1.

SURROLBUT.

"What's become," he asks, "of Waring?"

[You recall how Browning starts]

We can answer, greatly daring,—

He's become the Bart. of Bart.'s.*

* King's, Guy's and M.C.C., please copy.

* * *

OUR ENLIGHTENED STORY-TELLERS.

"As he was thinking, his hands were running lightly over Milburn's leg, registering the fractures, the damaged ligaments, the bruises, the internal bleeding. It was a compound fracture of the tibia and fibia, with a minor splintering of the periosteum, that small and vulnerable knob on the outside of the ankle.

"James pressed down two broad spatulate thumbs on the periosteum, and noted, half with dismay and half with delight, the pleasure which he got from Milburn's answering groan. . . ."

From an evening press short story.

Sir Walter Langdon Brown lectured on "Art and Fashion in Medicine" in the Great Hall of the British Medical Association on Tuesday, March 12th, at 8 p.m.

* * *

Lieut.-Col. J. M. Weddell, R.A.M.C., has been appointed Honorary Surgeon to the King and is promoted to the rank of Brevet Colonel.

OBITUARY.

HUGH WHITE WILLIAMSON.

THE death of Hugh Williamson occurred on February 4th at the early age of 28. This fatal result of a brief influenzal illness came as a sudden shock to his many friends and caused general regret.

He was educated at Norwich Grammar School and Trinity College, Cambridge, taking the B.A. degree in 1927. He came to St. Bartholomew's for his clinical training in the latter year, and qualified M.R.C.S.Eng., L.R.C.P.Lond. in 1930.

Following a short period as Casualty House Physician, he was appointed House Physician to Lord Horder in 1931, and at the conclusion of this, became a Junior Demonstrator of Pathology—the post he was holding at the time of his death.

In addition, he was Medical Registrar at the Hospital for Epilepsy and Paralysis, Maida Vale. Having decided, whilst in the Pathological Department, to take up clinical pathology as a career, he had recently been elected Pathologist to the Institute of Medical Psychology.

He took Part II of the Cambridge Final M.B. examination last year, and also proceeded to the M.A. degree.

Possessed of a singularly generous and likeable personality, Williamson will be sadly missed by all his colleagues; to be brought into close contact with him was to develop a genuine affection. Being a gifted tennis player, he had represented the Hospital in the VI whilst a student; he was also a very useful bat at cricket and a keen and competent performer with the gun at game shooting; a day spent in the country with him at the latter sport brings back happy memories to many of his friends.

His premature death and the termination of a promising career are greatly regretted, and deep sympathy will be felt for his wife and relatives in their bereavement.

A memorial service was held in the Hospital Chapel of St. Bartholomew's-the-Less on February 7th.

H. F. B.

THE ELECTROCARDIOGRAPH: ITS USE IN MEDICAL PRACTICE.

THAT electric currents are generated in the heart at each contraction of this organ was demonstrated in the middle of the nineteenth century. The currents are small, yet modern instruments are sufficiently sensitive to record them with facility. It is unnecessary that the heart should be exposed; the currents will deflect a suitable galvanometer when the latter is connected to the limbs of the human subject. It is the study of the direction, time-relation and magnitude of these currents which constitutes modern electrocardiography."

The record of the string galvanometer consists of a series of deflections or waves produced photographically by the up-and-down movement of the shadow of the string of the instrument. The normal electrocardiograph consists of a series of deflections, some of which are rapid and of short duration, while others are slow and of longer duration. They have been named in a purely empirical fashion P Q R S T.

The electrocardiograph in man consists of an auricular complex followed by a ventricular complex. The auricular complex constitutes an upward deflection termed the P wave, which is associated with auricular systole. The ventricular complex is composed of four deflections, the Q, R, S and T waves, and is associated with the ventricular systole. Three leads are in general use. In lead I the right arm and left leg are connected to the galvanometer string, in lead II the right arm and left leg, and in lead III the left arm and left leg are connected.

Of all the instrumental methods which have been introduced at various times in connection with the study of the heart and circulation, the electrocardiograph has proved the most valuable, as it is an instrument which gives a graphic record of the functioning of the heart-muscle at any special time, and it enables the actual working of the myocardium to be studied under physiological and pathological conditions.

It is the purpose of this article to discuss some of the points arising in the diagnosis and treatment of cardiovascular disease that the electrocardiograph may be expected to explain or to help in elucidating.

THE DIFFERENTIATION OF THE ARRHYTHMIAS.

In the differentiation of the various types of cardiac arrhythmia or irregularity the electrocardiograph is of particular value. With clinical experience we are able to distinguish many of such disorders from each other without instrumental aid, but few men are able to master the differential diagnosis of such conditions who

have not themselves either employed some galvanic method of recording the heart-beat, or at least frequently compared the clinical signs elicited at out-patients and at the bedside with graphic records. Moreover, the

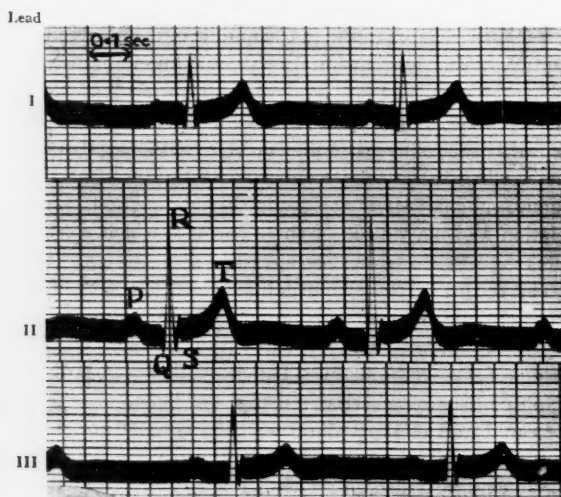


FIG. 1.—PHYSIOLOGICAL ELECTROCARDIOGRAPH.* (i) Rate 60 per minute. (ii) Rhythm normal, regular, impulse originating in sinus node. (iii) Length of PR interval normal (less than 0.18 sec.). (iv) Deviation of electrical axis, none. (v) Form of P wave, QRS complex and T wave normal in size, shape and position.

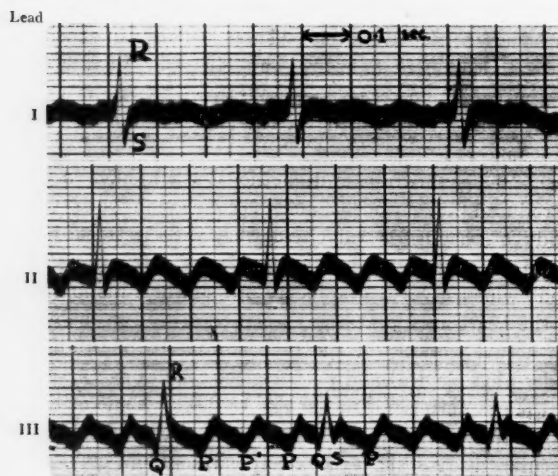


FIG. 2.—AURICULAR FLUTTER. (4:1 ratio.) Auricular rate 360 per minute. Ventricular rate 90 per minute. Rhythm regular, no left axis deviation. P wave is inverted. Record from a man, *et. 50*, suffering from lobar pneumonia.

recognition of auricular flutter and the differentiation of auricular fibrillation from multiple systoles, of auricular from ventricular paroxysmal tachycardia, or of

* In this and the subsequent tracings the time interval is 0.2 sec., not 0.1 sec. as marked.

regularly occurring extra systoles from partial heart-block, are often difficult, if not impossible, without the aid of an electrocardiograph or polygraph.

Again, in paroxysmal tachycardia, a single record taken during the attack, although recording an abnormal rhythm, may not always show the site of origin. In such circumstances, comparison of the electrocardiograph taken during the attack with one taken after the attack has ceased, may localize the site and mechanism of the paroxysmal attack.

THE DETECTION OF MYOCARDIAL DAMAGE.

The electrocardiograph may be of help in the detection of myocardial disease, particularly in those cases where physical examination elicits no abnormal physical signs. A physician does not need an electrocardiograph to tell him that there is something wrong with the heart-muscle when clinically he has found that the heart is markedly enlarged, or when he finds his patient confined to bed with marked congestive heart failure. There are many instances, however, where symptoms such as shortness of breath on exertion, nocturnal breathlessness, palpitation, rapid heart action, or pain in the chest which is not typically anginal in character, suggest that the cardio-vascular system, and in particular the heart, is the site of the trouble, but where clinical, and possibly, in addition, radiographic examination of the heart reveals nothing abnormal or nothing more than a questionable enlargement or some slight modification of the heart-sounds.

It is a sound general principle that one should not ascribe such symptoms to organic heart disease unless it can be demonstrated that the heart is abnormal. Failure to follow this principle is likely to result in the diagnosis of heart disease when the real cause of the trouble is a primary or secondary anaemia, a pulmonary lesion, neuro-circulatory asthenia, or a psychoneurosis.

The presence of an abnormal electrocardiogram, whatever the nature of the abnormality, increases the probability that the symptoms may be attributable to myocardial disease. It also suggests the necessity for further and detailed clinical investigation, a radiogram of the chest and a full blood-count. In fact, in consulting work, the examination of the cardio vascular system cannot be considered as complete unless, in addition to a careful clinical examination, a fluoroscopic examination of the heart and great vessels and an electrocardiographic examination are made.

INDICATIONS FOR REST OR CONVALESCENCE.

In the course of an attack of rheumatic fever or chorea, and less often in the course of, or during convalescence from, some other acute febrile illness,

such as diphtheria, scarlet fever, or pneumonia, the electrocardiograph may show evidence of transient or persistent myocardial involvement, and thus indicate the necessity for continued rest or more careful or protracted convalescence in cases where other signs to suggest that the disease has attacked the heart are lacking. In rheumatic fever, transient auriculo-ventricular block, as shown by prolongation of the PR interval (when PR is greater than 0.2 seconds), is the most common abnormality that we recognize. Two years ago, under the care of Sir Percival Hartley in Sol Memorial was a man suffering from lobar pneumonia.

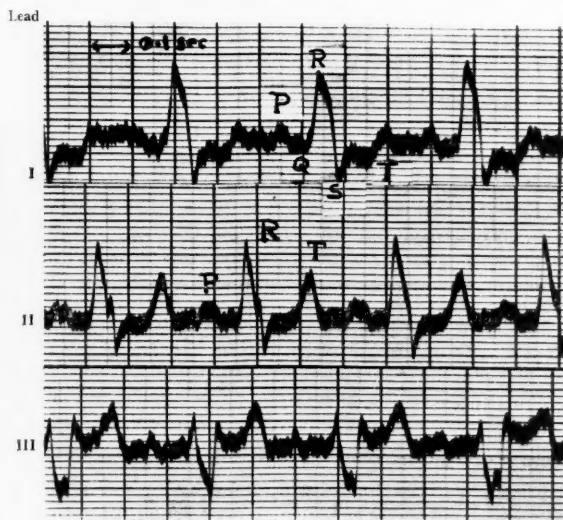


FIG. 3.—INTRAVENTRICULAR BLOCK. Right branch bundle block, old terminology. Left branch bundle block, new terminology. Rate, 84 per minute, regular sinus rhythm. PR interval not prolonged. QRS complexes wide, notched and directed upwards in leads I and II, downwards in III. T wave in opposite direction to preceding QRS complex in leads I and III. Record from a man, *æt.* 60, with symptoms of fatigue and shortness of breath, but no abnormal physical signs.

During its course he suddenly developed a tachycardia with an apical and pulse-rate of 180 per minute. An electrocardiogram taken at that time showed that the tachycardia was due to a 2:1 auricular flutter. It helped to explain the reason and the mechanism of a rapid heart-rate present in a patient in whom the other signs of severe toxæmia which are usually indicative of a bad prognosis were absent. After some hours the attack ceased and a normal rhythm was again recorded on the electrocardiograph.

THE DIAGNOSIS OF MYOCARDIAL DAMAGE.

Middle-aged people frequently come to hospital with symptoms of increasing fatigue and shortness of breath

on exertion, in whom there is no clinical evidence of cardiac enlargement, the blood-pressure is within normal limits or perhaps somewhat low, and the heart-sounds are modified or distant. The electrocardiograph quite frequently will show in such patients evidence of intra-ventricular block with a right or left branch lesion, and thus indicate the presence of myocardial damage. In patients suffering from high blood-pressure evidence to suggest myocardial damage may sometimes be elicited by the electrocardiograph before definite myocardial symptoms or physical signs develop. Such changes are of value in helping to decide whether the elevation of blood-pressure has been present for some time and is likely to be of serious significance, or if it is of recent origin and, possibly, transient. They may be of help also in assessing the risk of submitting such patients to surgical treatment, such as prostatectomy.

Electrocardiographs, if taken at intervals of six months or a year, may help to show if the myocardial damage remains constant or is progressive. In some patients the writer has been able in the course of four or five years by the taking of serial electrocardiograms to show progressive changes. For example, the picture of left axis deviation and vertical T waves is followed by inversion of the T wave of the first lead, and later the picture typical of intra-ventricular or so-called right branch bundle block (old terminology) may develop.

ASSESSMENT OF MYOCARDIAL FUNCTION.

It must be realized that the electrocardiograph only affords evidence of the heart-function at the time of examination. In patients in whom one suspects the presence of myocardial damage, but who present physiological electrocardiograms, it is of value to exercise them by making them climb the stairs or walk round the Square. Evidence of transient myocardial fatigue may sometimes be shown by records taken immediately after the exercise.

Occasionally, it is also possible to elicit at will the picture of intra-ventricular block by exercising a patient who at rest presented a normal tracing. Also, it is possible sometimes by the inhalation of amyl nitrite to revert to normal the electrocardiograph of certain patients who persistently show inverted T waves. The electrocardiograph gives some indication of the functional efficiency of the myocardium. Over-exertion in an inefficient cardio-vascular system may produce myocardial ischæmia, which may portray itself in certain electrocardiographic changes. It is probable that by inhaling amyl nitrite the coronary circulation is improved and transient myocardial ischæmia relieved.

In patients suffering from angina pectoris abnormal

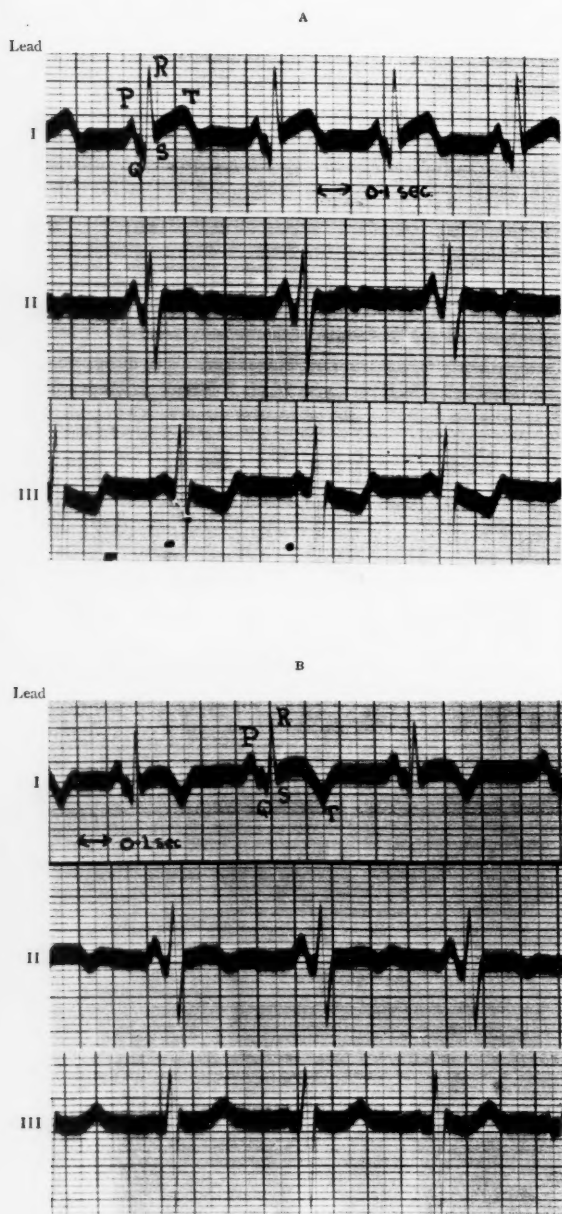


FIG. 4.—CORONARY THROMBOSIS. Showing deviation of the RT segment from the iso-electric plane (Pardee's sign) occurring shortly after the onset of a coronary thrombosis. This change is followed by inversion of T wave in lead I, and to a lesser extent in lead II. (Coronary I type.) Record A was taken 48 hours after an attack of coronary thrombosis in a man, *æ.t.* 58. It shows a peculiar ST segment (Pardee sign) in lead I, and biphasic T wave in leads II and III. Record B was taken three days later. The main QRS deflection in lead I is upright. T wave is biphasic in II, and vertical in III, the convexity of the deviation upwards, and the T wave is sharply inverted.

changes in the electrocardiograph tend to increase the possibility that the clinical diagnosis is correct. Transient electrocardiographic changes, such as intra-ventricular block or inversion of the T wave in lead I may occur during the anginal attack, suggesting by their presence additional evidence that the pain is of cardiac origin and associated probably with transient myocardial ischaemia. A physiological curve, however, does not negative a diagnosis of angina pectoris. In some two-thirds of the cases of angina of effort that we have seen no electrocardiographic changes have been recorded. In the other third, however, changes such as inversion of the T wave in lead I, prolongation of the QRS complex suggesting intra-ventricular block, alteration in the Q wave, in particular a deep Q wave in lead III, are present and suggest evidence of myocardial damage.

THE ELECTROCARDIOGRAPH IN CARDIAC INFARCTION.

In coronary thrombosis the electrocardiograph frequently shows characteristic changes. An electrocardiograph is particularly helpful in cases in which the physical examination of the heart is entirely negative, particularly when a period of a week or more has elapsed since the onset of the attack. Also, it is of value in cases in which the differential diagnosis lies between cardiac infarction and acute cholecystitis, perforated peptic ulcer, or a basal or diaphragmatic pleurisy. The electrocardiographic changes may persist for years after the occurrence of myocardial infarction, and there are many cases in which the diagnosis cannot be made without the aid of the electrocardiograph. Occasionally, the electrocardiograph may furnish the only available evidence that an infarction has taken place. On the other hand, a normal tracing cannot be used as a basis for excluding cardiac infarction when clinical and other evidence suggest its occurrence. Some of the more distinctive electrocardiographic changes that occur in coronary occlusion are transient, and pass through more or less definite cycles. Frequent or serial tracings are, therefore, useful in judging the progress of the condition and deciding the method of treatment. Common immediate changes which may occur are alterations in the ST segment (a peculiar "humping" of this segment being known as Pardee sign), transient auricular flutter or fibrillation, or transient intra-ventricular block followed by T-wave changes. Inversion of the T wave may occur in the first and second, or second and third leads, and help to locate the site of the infarction and differentiate right and left coronary artery occlusion. The recognition of these changes is of particular value in patients

who have previously shown physiological electrocardiographs.

THE CONTROL OF DRUGS IN THERAPY.

The administration of digitalis in many cases, in particular when the drug is given rapidly or to the limit of tolerance, may be controlled by frequent electrocardiographic examinations. Digitalis is a cardiac poison, and the clinical symptoms of overdose sometimes are lacking or do not attract attention. Variations in the form of the ventricular complexes, a peculiar form of T-wave inversion in the three leads, may occur, and when associated with ventricular tachycardia or auriculo-ventricular dissociation, may be seen in association with the clinical picture of nausea and vomiting, or even at times be the first indication of digitalis overdose.

In the modern treatment of auricular flutter or fibrillation with massive doses of quinidine, the use of the electrocardiograph is almost essential to follow the changes of rhythm, and regulate the dose of the drug.

DIAGNOSIS IN CONGENITAL AND OTHER FORMS OF HEART DISEASE.

The electrocardiograph is occasionally of value in the diagnosis of certain valve lesions, in detecting advanced mitral stenosis, or in the differentiation of pulmonary stenosis from other congenital malformations and from aortic stenosis. Right axis deviation is commonly associated with pulmonary stenosis, and left axis deviation with aortic stenosis. The diagnosis of dextrocardia may be confirmed or, as in my experience, occasionally made with the aid of the electrocardiograph.

We do not as yet understand the significance of high and low voltage curves. In general, in young persons with marked cardiac enlargement due to congenital malformation of the heart or associated with rheumatic aortic incompetence, high-voltage curves are common and tend to suggest that the heart-muscle is in good condition. Low-voltage electrocardiograms in patients with congestive failure and cardiac enlargement are as a rule associated with a poor prognosis. The presence of low-voltage curves is significant in myxædema, and with the application of intensive thyroid treatment one may watch them return gradually to normal.

ÆTIOLOGICAL DIAGNOSIS.

The electrocardiograph does not help in making an ætiological diagnosis. The significance of certain electrocardiographic changes is different in the various ætiological groups. For example, intra-ventricular

block is not uncommon; the prognosis in the individual patient is dependent on the underlying ætiological condition. In a group of 100 cases of intra-ventricular block studied by the writer, the worst prognosis was found to be in those patients who suffered from syphilitic and thyrotoxic heart disease, all of whom died within two years. The next bad prognosis was in the rheumatic group; all of these patients suffered from advanced mitral stenosis, but many of them are still alive five years after investigation. The best prognosis was in those who suffered from cardio-vascular degeneration. Many of these cases are still alive, and two who had been known to have right branch bundle block for ten years prior to the investigation came to see the writer recently.

SUMMARY.

In conclusion, the electrocardiograph can differentiate the arrhythmias; it can detect myocardial damage, sometimes when all other methods have failed; it helps in following the course of certain processes, and may give indications for continued rest or convalescence; it may help in the diagnosis of congenital and other forms of heart disease; but in itself it cannot be used to exclude the presence of organic heart disease.

FRANCIS BACH.

THE VILLAGE POLICEMAN.



HAD just returned home after a long round. The number of patients I had visited had not been themselves enough to occupy the whole morning. But a round on a warm day in June, which took you down to the mouth of the river, across the mud-flats where the flowering cotton-grass bent before the sea-breeze, all this with the crying of lapwings and the whistling of red-shanks tended to slow progress. But in such a case and on such a day why hurry, with no rival doctor within miles and miles? My last visit of all had been to Mrs. Dwiggin in the village. She had become during my two years of practice at Bewley a regular and a profitable patient. "Asthma", in inverted commas, was my diagnosis of her chest complaint, and under my care and treatment she had grown, day by day, no worse. After putting the car into the garage I went to the dispensary to mix the medicines for the patients I had seen that morning.

Scarcely had the cork been rammed home into the last bottle—for Mrs. Dwiggin—and just as I was writing the label there was a smart tap on the door.

"Come in," I cried, and slowly, but majestically, there entered the tall, uniformed figure of Sergeant

Kitcher, the village policeman. Strictly speaking his title of "Sergeant" was a euphemism, a tactful compliment paid him by the villagers. Officially he was only Constable, was born to be a constable and a policeman who by no possibility whatever could rise to any rank above that of village constable. He was a type of policeman common before the War, but one which has since then been ousted by the suave, polished young men of the old public school-boy type, who to-day constitute the force. Fortunately crime, even the most petty, was all but unknown to Bewley, which was as well, since Kitcher was one of the most obtuse, dull-brained and muddle-headed of men.

"Well, Sergeant", I cheerfully inquired, as I put the final dab of sealing-wax to Mrs. Dwiggins's bottle of medicine, "what's the trouble this time? A licence I suppose; dog, car, driving, gun or what?" The Sergeant drew himself up, saluted, pulled down his tunic, coughed, looked all round, closed the door, and then said in a mysterious voice: "I am making certain inquiries relating to a matter appertaining to an object which has been found." "What exactly do you mean, Sergeant," I replied. "What is it you have found?" "It wasn't me found the object, Sir, but a certain party found it, or at least reported finding it, and after consideration and taking into account the place where it was found, I decided to come straight to you, Doctor, to ask if it was yours." "Thanks", I answered, "very good of you indeed, and what is the object?" "It ain't customary in the force, Sir," said the cautious constable, "to name an object found under such circumstances, and I must ask you to tell me if you have lost anything." No, I could not remember having lost anything lately and told him so. "Come now, please Doctor," the policeman urged, evidently disappointed, "can't you bring to mind something belonging to you which you have lost?" This form of question and answer reminded me of that fireside game where the inquirer, in reply to questions, is allowed to answer only the two words "Yes" or "No". "Now, then, Sergeant", said I, becoming at last a little weary of all this mystification, "out with it, and tell me what it is that has been found and then I can tell you at once if it belongs to me or not." But the policeman was not going to be hurried, nor yet browbeaten. Rules are rules, regulations, and in the force the rule is that the loser has got to say what he has lost, and not the policeman what has been found. And doubtless a very wise precaution, too. Suppose, for example, a policeman went up to a man and asked, "Have you by any chance lost a brown leather wallet containing four one pound notes and one ten shilling one?" The man, if not as honest as he should be, might reply, "Yes, I have—

thank you very much; wherever did you find it—here's half a crown for your trouble; good morning."

Sergeant Kitcher was taking no such risks. He knew himself to be too old and too crafty a bird to be caught by my chaff. But I was in a hurry to go to lunch, and anyway the business had dragged on too long; so rather irritably I said, "You might just as well tell me what it is you've found, and then I can tell you if it's mine or not". With evident reluctance and misgivings the policeman agreed for once to break the rules, and from his coat-tail pocket brought forth, after a good deal of fumbling, my stethoscope, which he now confessed had been picked up just inside my own garden gate. I would have taken it then and there, but before parting with it the Sergeant insisted I should first declare it to be my own property. At last I got cross. After scrutinizing the stethoscope I told the Sergeant that, after all, I could not positively swear it was mine. It was my turn now to act with caution. I said that I thought now it was not my stethoscope, although it looked so like mine at first. Perhaps, I suggested, it belonged to one of the other doctors, Dr. Bairn, at Hythe, or Dr. Maturin or Dr. Statham, at Lymington, or Dr. Hutchinson, at Fawley, and I advised him to lose no time at all in restoring it to the rightful owner, for more than likely some patient's life depended on it. These words of mine began to have, I could see, an effect on the slowly working mind of the village policeman. He found himself now in a bit of a fix. Obviously a strange medical instrument found lying in the carriage-way of the only doctor within miles could scarcely belong to any other practitioner. However, feeling that by now the affair had lasted quite long enough and that it was up to me to end it, I proposed that the stethoscope should remain in my care, but promised to give it back if any other doctor claimed it. With a sigh of relief the Sergeant handed it over to me and wished me good-day. "By the way, Sergeant," I called out as he left, "it's a hot and thirsty day, why not go round to the back door and ask Annie for a glass of beer."

PHILIP GOSSE.

CLINICAL METHODS.

A NOTE ON THE CONTROL OF PERNICIOUS ANÆMIA WITH INTRAMUSCULAR LIVER THERAPY.

The modern treatment of pernicious anæmia consists largely of maintaining an adequate supply of the essential hæmopoietic substance which the body can no longer manufacture for itself. There is no attempt to attack the underlying pathological processes in the stomach which give rise to this deficiency. All too little is known of this initial change, but the end-result is irreversible. Consequently replacement of this deficiency must continue for the rest

of the patient's life. This fact must constantly be borne in mind, and treatment must be arranged so that the life of such individuals can be made as normal as possible. The object of this note is to show one of the ways in which this can be done with comparatively little inconvenience to the patient.

There are now many reliable extracts of liver on the market, some more concentrated than others, and until some chemical method of estimating the content of the hæmopoietic principle in these extracts is available, it is only possible to test their potency by clinical trials. The initial quantity from which the extraction is made does not necessarily bear any relation to the potency of the final product, nor does there seem to be good evidence that aqueous extraction is inferior to any other process. In view of these difficulties, it seems desirable that each clinician should choose a reliable preparation and use it always, so that he may know what to expect from any given dose.

In the following scheme of treatment, no attempt will be made to deal with any factors in the treatment, other than maintaining indefinitely an adequate supply of hæmopoietic substances. The preparation used is a concentrated aqueous extract of liver prepared for intramuscular injections. It is known as *Pernamon Forte*.

The initial dose will depend on the condition of the patient at the time when treatment is begun. If the blood-count has fallen very low and the red blood-cells are under 1,000,000 per c.mm., an initial dose of 10 c.c. of *pernamon forte* should be given intramuscularly. If the red blood-cells are between 1,000,000 and 3,000,000 per c.mm. then 8 c.c. would be sufficient, and above this level 5 c.c. will be adequate. There is no harm in giving larger quantities, but there is no known advantage in so doing and naturally it raises the cost of treatment. During the first few weeks after this injection there will be a progressive rise of hæmoglobin and red cells, and at the end of four weeks, the blood-count will usually reach a normal level of approximately 100% Hb. and 5,000,000 red cells. A further injection of 5 c.c. of *pernamon forte* should then be given. It is advisable to do blood-counts at intervals of two weeks following this injection until there is a slight fall in the blood level. Another injection of 5 c.c. should then be given. By repeating this procedure several times the interval between the injections necessary to keep the blood-count at a normal level can be established for each patient. This interval in my cases has never been less than four weeks, and is often 8 to 10 weeks. In one case it has been found to be 12 weeks. This interval, however, varies with every case and also in the same case from time to time. It seems as if the disease runs its natural course with relapse and remission in spite of liver therapy. If it be not possible to have frequent blood-counts, then injections of 5 c.c. of *pernamon forte* should be given every four weeks. If this be done it is fairly certain that the blood-count will be kept at a normal level, but it is undesirable for patients to go longer than three months without a blood-count, as intercurrent diseases may impair the response to liver therapy, and it is impossible to gauge the patient's condition accurately by clinical observation alone.

E. F. S.

TECHNIQUE OF LOCAL ANÆSTHESIA IN THE TREATMENT OF FRACTURES.

It is often not only convenient for the surgeon but also pleasanter for the patient to have a local instead of a general anæsthetic for the reduction of a fracture. The technique is not difficult, and in suitable cases the degree of anæsthesia and the relaxation of muscles are excellent. The local anæsthetic solution is injected into the hæmatoma which surrounds every fracture, so that the best results are obtained in recent fractures—within three days of the injury—and usually the greater the displacement of the fragments the better is the anæsthesia obtained. It is advisable to have a fairly strong solution of novocain—2% is usually used. The addition of adrenalin is neither necessary, nor does it appear to improve the degree of anæsthesia obtained.

The skin over the site of the fracture is cleaned with ether-soap and surgical spirit. With the finest hypodermic needle a few drops of the novocain solution are injected, raising a weal. A somewhat larger and longer needle mounted on a 20 c.c. syringe is then passed through the weal and down to the site of the fracture. From a study of the skiagrams a site for the entrance of the needle should be chosen so that, if possible, the needle point goes between the fragments. In many cases it can be felt to impinge against a rough fractured surface. The piston of the syringe is now withdrawn, to

determine whether the needle point is in the hæmatoma. If it is, blood will probably flow back into the syringe. If no blood appears, inject 3 or 4 c.c. of novocain and again withdraw the piston, as sometimes the novocain, mixing with the blood, allows it to come back. It is important that the novocain should be injected into the hæmatoma, as it is only by so doing that good anæsthesia of the whole fracture is obtained. The quantity of novocain solution necessary varies from about 20 c.c. to about 50 c.c. according to the particular fracture. It is advisable to wait for about ten minutes after the injection before manipulating the fracture. In the case of fractures of the radius and ulna or tibia and fibula it is, of course, necessary to inject both bones. In a Pott's fracture two points of injection are usually necessary: from one on the inner side the fracture of the internal malleolus is first injected; without withdrawing, the needle is then passed deeper and novocain injected into the ankle-joint; from a second point, the fracture of the fibula must be injected on the outer side. The reduction and splinting of fractures is the same with local as with general anæsthesia. Local holds an advantage over general anæsthesia, however, in that immediately after reduction, while the surgeon holds the fragments in position the patient may co-operate, and with active movements of the joint demonstrate that reduction is complete.

Local anæsthesia is also of great help in fracture work in applying skeletal traction. Any form of traction, pin or wire, may be passed through a bone under local anæsthesia. Again, a 2% novocain solution is used. The skin and subcutaneous tissues are infiltrated with novocain at the desired site, e.g. os calcis, tuberosity of the tibia, olecranon process of ulna. The needle is then passed down to the bone, and while pressed against it 2-3 c.c. of solution are injected so that the periosteum is anæsthetized. This procedure must also be repeated on the opposite side of the limb at the point of exit of the traction pin. If the periosteum is anæsthetized on each side of the bone, no pain is felt by the patient as the pin goes through the bone.

J. P. H.

A NEW CLINICAL TEST FOR BILIRUBIN IN URINE.

A simple qualitative test has been worked out in Dr. G. A. Harrison's laboratory. It consists in the oxidation by Fouchet's reagent of bilirubin adsorbed on a barium precipitate, and is performed as follows: A test-tube is half-filled with urine (about 10 ml.) and half the volume of 10% barium chloride solution is added. The contents are mixed and filtered. After the fluid has passed through, the paper is spread on another dry piece of filter-paper and 1 or 2 drops of Fouchet's reagent are added to the precipitate. A green (biliverdin) or blue (cholecyanin) colour indicates bilirubin.

Fouchet's reagent consists of:

Trichloroacetic acid 25 grm.
Distilled water 100 ml.
10% ferric chloride 10 ml.

The test is very delicate; it is much more sensitive than either Gmelin's nitric acid test, or the iodine ring test; at the same time it is not too sensitive; normal urines are clearly negative, and urobilin does not give a false positive reaction; the minimum amount of bilirubin detectable is 0.003-0.008 mgrm. per 100 ml. of urine. For further details see the *Biochemical Journal*, 1934, xxviii, p. 2056.

E. G. G.

"THE LIFE AND WORKS OF CHARLES BARRETT LOCKWOOD, 1856-1914."

(Continued.)

In the theatre Lockwood spared neither himself nor his assistants. As one of his house surgeons says: "He set the standard and you followed unquestioningly. He had never known what it was to spare himself, and you could hardly be expected to hesitate when he led the way; your own hands might be raw to the bone

through scrubbing and antiseptic applications in your patients' interests, but your duty to a patient under your care was too sacred a trust for your own precious skin to be thought about."

He hated inefficiency over any detail. If, during an operation, the nurse handed him a new set of instruments, he always asked, "When were these sterilized?" If the answer was "To-day", he used them, but if it was "Yesterday", he would throw them across the theatre in disgust. Scalpels had to be properly sharp or else they were dashed scornfully to the floor, one after the other. If the bowl of antiseptic was not changed quickly enough he would overturn it out of sheer impatience, and many a nurse was rendered completely incapable of doing anything right for the rest of the afternoon by reason of his rudeness and the caustic complaints that he would make. Sometimes, when he was very tired, he would say personal things that he regretted, and then he would tell the sister afterwards not to pay any attention to what he said, as it was not really meant.

He had a rooted conviction, either assumed or real, that no assistant was ever satisfactory. Thus, as one of them says, "Nobody could hold a stomach for him in a gastro-enterostomy operation; nobody could push up a kidney; nobody ever sponged quickly enough; nobody ever got his hands out of the way; nobody ever lifted a patient properly".

A caustic wit sometimes displayed itself in his comments in the theatre. "You may lift the patient by the hair, by the eyelashes, by the pressure-forceps, but never, oh, never, by the pelvis," he would say. And, once to a nurse who was slow: "I want a basin—to-day, not to-morrow. Yes, for this operation. Now, where is it?" "Here, behind you, sir," came a harassed voice. "Good heavens, does the woman think I'm a damned lobster to see at the back of my head!" he thundered.

Those who meekly submitted to Lockwood's tyranny seemed to make his anger worse, but it pleased him when anybody stood up to him. He had a habit, when dressers made mistakes, of asking them sarcastically where they were educated. One day the answer was, "Only Oxford, sir". Lockwood referred to an Oxford education in contemptuous terms. Whereupon the dresser left the theatre, took off his gown and appeared in the gallery. Lockwood liked him ever after.

Another occasion when Lockwood got as good as he gave was when Sister Coburn came to the theatre with a septic case. He shouted for another bowl of biniodide, and when it was not immediately changed seized it and deliberately upset it down her apron. "Don't you know what you ought to do here?" he cried. "Yes,"

she said firmly, "I know I ought always to bring a mackintosh and umbrella to your theatre."

There are some who regard Lockwood's behaviour in the theatre as quite unforgivable, while others attribute his rudeness entirely to the strain of his work and the bad state of his health. There is no doubt that a crowded gallery excited him to greater violence, but at the same time he wore himself out with his work to such an extent that his nerves became badly frayed.

The poor condition of the operating theatres aggravated him, and it was not until he had already been an assistant surgeon for some time that a second theatre, called the New Theatre (now used for ophthalmic work), was constructed. This he always used in preference to the Old Theatre (which had been built as far back as 1791 for Abernethy), and he was most particular, amongst other things, about the temperature at which it was kept. In the winter he would not operate if it was below 60 degrees, while in summer the room had to be kept cool by large blocks of ice standing in a bath. Later, in 1905, two somewhat more modern theatres were added to the Great Hall block.

No operation was too big for him, and nothing daunted his determination. "Remember," he would say, "that when once the removal of a tumour has been begun, it is safer to go on than to turn back. This is pre-eminently a moment when the qualities of a surgeon are revealed." At one memorable operation lasting, it is said, for over five hours, all three large serous cavities of the body—peritoneal, pleural and pericardial—were opened together.

Bold as was his operative technique, it was essentially safe and somewhat slow, for he had no sympathy for what he would call "heroic surgery—practised on heroes". Judgment and knowledge were qualities which he regarded as of more value to a surgeon than mere operative dexterity. And in his own case it was rare for his judgment to be at fault.

Desault has said that "the simplicity of an operation is the measure of its perfection", and this was the keynote of Lockwood's technique. His instruments were few and simple, and he cultivated a plain exactitude of method, quickly recognizing that multiplicity and diversity of materials only multiplied the chances of infection. Every unnecessary pair of hands had to be eliminated.

Mr. Harmer tells me that Lockwood was the neatest man at "sewing-up" that he has ever seen. He nearly always used continuous suture, and especially insisted on its not being drawn too tightly.

As a result of operating Lockwood used to become so easily tired that he would never do more than three major operations in one afternoon. He perspired

profusely, and at all times when possible he sat to operate. Often he was in considerable pain from neuritis, but his north-country grit never deserted him.

"Courage is the thing," Barrie has said. "All goes if courage goes" (9). And though the strain of a heavy afternoon in the theatre left Lockwood not merely exhausted, but actually prostrated, he was never known to give up an operation. "Either I or this patient gets carried out of the theatre," he would say, "but this operation shall get finished."

* * *

One of the many innovations introduced into the theatre by Lockwood was the practice of having portions of tumours immediately sectioned with a freezing microtome and stained with methylene-blue for examination. The whole process took only five minutes, and appealed to his scientific mind, for often he found that tumours which appeared by their naked-eye characters to be innocent proved in fact to be malignant when the sections were seen. Thus the patient was saved a double operation, and in any case, as he put it, an early biopsy was preferable to a late necropsy. He came to use the method frequently when dealing with doubtful tumours of the breast, and though sections never seemed to him to be cut nearly quickly enough, nor stained well enough, he encouraged others to adopt his plan.

It might be thought that so fiery and irritable a character would be something of a trial to his house surgeons, but on the contrary, it is they, and all who knew him well, who are the first to express their devotion to him. He imposed a great deal of responsibility on them, but he was always prepared to back them up. The attitude of many is summed up in a remark which one of them was overheard to make, "I would rather be cursed by Lockwood than praised by —", and this particular house surgeon had received a more than ordinary share of buffetings. But it was the man who showed unpardonable ignorance, the man who deserted his patient when it was his duty to be there, the man who tried to cover his faults by words—such was the type to whom Lockwood was really merciless. "If you met him with the tale of a catastrophe which could be attributed to your lack of experience he would never censure: 'I will never blame you so long as you do your best'; or again, in even kinder vein and putting his hand on your shoulder, 'My dear boy, I began surgery myself once'."

To patients he was an impressive figure, and they trusted him implicitly, understanding rightly that their interests were what mattered most to him. He always observed the most scrupulous etiquette when at the bedside, even of a miserable infant a couple of feet

long; and to his patients, unless they were inordinately stupid in answering his questions, his usually caustic tongue was never employed. He understood full well the truth that "a sick man has no reserve of strength to battle with a porcupine, and a doctor who has any spikes about his manner can never do the best for him" (10). Lockwood knew that patients were apprehensive, and, in making his examination, his own experience of bodily pain led him to employ a touch which was infinitely gentle. "The human being fears death above all things," he used to tell his dressers: "after death he fears pain, and after pain, parting with his possessions."

One of his nurses tells me that she remembers seeing him particularly kind and charming to really ill people, and that there was one such old woman, who must have tried his patience a good deal, as she quoted Scripture at him, verse after verse. Perhaps Lockwood was amused at this, since he himself frequently introduced Biblical references on his rounds.

His memory for old patients and their case-histories as well as for their occupations and personal characteristics was remarkable. Once in "President" he looked at a patient and immediately said to her: "You were in this Hospital four years ago with gastric ulcer, in No. 6 bed in the front ward of Lucas; you are a dairymaid, and your mistress's name is Mrs. Pent-whistle." In the face of this the patient was mildly surprised that he was not aware that she had since changed her job.

As a diagnostician he was both rapid and accurate, frequently avoiding pitfalls, into which others fell, by reason of an acute logical mind; his prognostic powers were also well known. Hippocrates said that "the cure will be best performed by one who knows beforehand what will happen in diseases", and this fact accounted for a good many of Lockwood's remarkable results. Even his Sister in Kenton Ward often expressed her astonishment: "Whether it's because he knows more than anybody else, or whether it's because things happen simply because he wishes them to happen, he is always right."

Not a great believer in drugs, he particularly objected to the use of morphia post-operatively, especially in abdominal cases. He also had a rooted dislike to having to deal with fractures.

"What should you do when you get a case of fractured femur in private?" he would ask his dressers on a ward round. Various suggestions would be made. Some would plate the bone, some would use external splinting, Thomas's splints and Balkan frames being unknown then, the results of fractured femurs were predominantly bad. None of the replies satisfied him. "Operation," he said, "would be followed by sepsis, and

sequestrum formation. External splinting would probably result in deformity, mal-union and incurable foot-drop." At last, with a wry smile, he would give the right answer: "What you do is to send it at once to the old Scotch doctor, your rival, round the corner. He is an expert in these things! You may think that bones are filled with good red marrow; nothing of the sort; they are filled with black ingratitude, which comes out of them when they are broken."

The famous epigram about the fracture is attributed originally to someone else, but it was certainly Lockwood who originated the warning that, if compelled to treat a fracture—"When called, refuse to go until you have joined the Medical Defence Union and filed your bankruptcy petition". It was he, too, who was amongst the first to insist upon the importance of having X-ray photographs taken of fractures, and the first X-ray viewing box to be seen in a Bart.'s ward was the one which he had placed in Kenton.

Throughout his surgical career he was ever alive to new methods of investigation and treatment, and, combined with his great gift for logical and lucid reasoning, this contributed much to his success as a surgeon. An article published in the *Clinical Journal* in 1912 under the title of "With Mr. Lockwood in the Wards of St. Bartholomew's Hospital" gives an illuminating account of an interview between Lockwood and the mother of a patient who was about to have an operation for hæmorrhoids. It illustrates both these qualities well:

"She asked first, Would he not have spasmodic contractions after the operation? No; the sphincter will be put at rest. Second, Would not the pain be dreadful? No; a morphia suppository will be introduced into the rectum. Third, Would he not suffer from wind? No; a tube will be left in the rectum to let it out. Fourth, Would not those silk ligatures have to be pulled away? No; catgut will be used; there will be no ligatures to come away. Fifth, But the pain will be dreadful when the bowels act? No; cocaine will be applied. Sixth, Then why did I not have all these things myself? Because your operation was performed many years ago."

Often his reasoning was based on a worldly and common-sense understanding of men and affairs rather than on strictly medical considerations. For example, he foretold on one occasion, before operating for appendicitis:

"(a) That the patient would take the anæsthetic badly.

"(b) That Mr. Gill would scarcely be able to overcome the rigidity of the abdominal muscles.

"(c) That the appendix would be adherent and most difficult to extract. And—

"(d) That the subsequent illness would be most severe."

All of these forecasts came true. "But (he said) note the kind of reasoning upon which they were based. Medicine and surgery had little to do with them. The man was a car driver—well, there is a car at nearly every public-house; beer and anæsthetics do not go well together. Next, a car driver has to have strong muscles, and strong muscles are difficult to relax with anæsthetics. Then, a rough working man is careless about illnesses, and would ignore even severe attacks



SPECIMEN TO ILLUSTRATE CONGENITAL INGUINAL HERNIA, PRESENTED TO THE HOSPITAL PATHOLOGICAL MUSEUM BY C. B. LOCKWOOD IN 1888.

(Reproduced by kind permission of Mr. R. T. Payne.)

of appendicitis until absolutely compelled to go to bed. Is it necessary to point out how all these and other considerations would affect the operation and subsequent prognosis?" (11)

The progressiveness of Lockwood's mind was nowhere better demonstrated than in his appreciation and encouragement of the new methods of clinical pathology which he saw being elaborated and put to practical use during his time. "Science knows, Art does" goes the saying, and anything which could enable him to base his art on more exact scientific principles was to Lockwood a step towards a more certain form of surgery. He was amongst those who gave early trials to vaccine-therapy; he gained good results with auto-inoculation in the treatment of staphylococcal abscesses, and he

saved more than one life by the prompt administration of anti-streptococcal serum.

He insisted upon the importance of accurate knowledge, and when he was shown a certain child with inflammation and suppuration of its scalp, he was not content merely to be told that it had "cellulitis of the scalp". Nor did "vulvitis" satisfy him as a diagnosis of the condition of another child. In both cases he demanded a pathological report, and in each instance diphtheria bacilli were found. Both children were thereupon treated with therapeutic serum and made a good recovery.

Lockwood was one of those who never regarded any case as hopeless. Often his intervention would be successful, and he explained to a friend one day about a laparotomy he had performed on a patient who was very bad with peritonitis with effusion. She was obviously extremely ill, and it seemed hopeless. "But," he said with a grimly humorous look upon his face, "I did not think she should go before her Maker with a bellyful of pus, so I operated, and she recovered."

An operation which brought him some fame at the time was one which he performed in 1897 on the late Mr. Ernest Hart (for many years Editor of the *British Medical Journal*). Hart had developed diabetic gangrene of the right foot, and his condition had become serious. Several surgeons refused to touch him, but Lockwood took his courage in his hands and amputated the leg. In those days primary healing in such a case was rare, but with Lockwood's skilful management the leg healed well. "There is such a thing as being too much afraid of your adversary," he would say. "Some most forbidding cases give good results."

Lockwood was essentially a general surgeon, but with the improved methods of surgery which he helped to introduce he was to the fore in abdominal work. With Sir Frederick Treves he was a pioneer in the surgical treatment of appendicitis. He also did much work on hernia and carcinoma of the breast. At the Royal College of Surgeons of England he was called upon to deliver the Hunterian Lectures upon four occasions. His subjects were as follows:

- 1887. "The Development and Transition of the Testicles, Normal and Abnormal."
- 1888. "The Early Development of the Pericardium, Diaphragm and Great Veins."
- 1889. "The Morbid Anatomy, Pathology and Treatment of Hernia."
- 1895. "Traumatic Infection."

They give a good idea of his earlier interests. In 1908 he was elected to the Council of the College, and retained office until the time of his death. A great frequenter of the medical societies, he held important positions in many of them. He delivered the Lettsomian Lectures

before the Medical Society of London in 1904, choosing as his subject "Aseptic Surgery in Theory and Practice". He became President of the Society in 1908, and in his Presidential Address spoke with wise foresight on "The Stress and Strain of Modern Surgery".

He also became President of the Harveian Society, was a Fellow of the Royal Society of Medicine, and a Member of the British Medical Association.

Despite the heavy demands on his time as a surgeon he continued to take a very active part in the proceedings of the societies to which he belonged, and he was, in addition, a prolific writer of short works. Of all his publications, probably his *Clinical Lectures and Addresses on Surgery* was the most widely read; it is a fascinating reproduction of the penetrating and colloquial style of his teaching.

With the ever-increasing burden of his private work and the steady decline in his health, Lockwood found himself unfit to carry on his arduous hospital duties to their full term. He resigned from the active staff in 1912, at the age of 56, and was appointed a Consulting Surgeon and a Governor of the Hospital.

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E. C. O. JEWESBURY.

(To be continued.)

AN UNUSUAL CASE OF DIABETIC COMA.

CASES of diabetic coma in which no acetone bodies are found in the urine are rare, and the reasons for this absence of acetone bodies have not yet been clearly established. The following case is of interest because, in addition to the urine being found free of acetone bodies, certain changes were observed in the cerebro-spinal fluid of a nature which has not been previously recorded in a case of this kind.

G. B—, æt. 13, schoolgirl, was admitted to St. Bartholomew's Hospital on October 18th, 1934. The history was that the first onset of acute diabetes had occurred two years previously and the patient had been warding in the Hospital for Sick Children. She was there for five weeks, was stabilized on insulin 15 + 12 units, and did quite well for two years.

Two weeks before her admission to this Hospital the patient began to lose her appetite and large amounts of sugar were found in the urine. She grew irritable and complained of thirst. Two days before admission she began to vomit and was passing very little urine. The patient felt drowsy and cold. Her parents gave her the usual dose of insulin. The next day the patient's condition showed no improvement. She was sent to the Hospital for Sick Children, given 40 units of insulin and transferred (as she was too old for admission at Great Ormond Street) to this Hospital.

On admission the patient was very drowsy, but could be roused on strong stimulation. She was throwing her limbs about in bed and acetone could be smelt in her breath. Her temperature was 97.2°, and her pulse 144. The blood-pressure was 70/40 Hg. Knee-jerks and ankle jerks were not obtained.

Her urine showed a trace of sugar, a faint trace of acetone and large quantities of albumen. The blood-sugar was 310 mgrm. of sugar per 100 c.c. blood. 25 grm. of glucose were given and the patient put on an excess of fluids.

Next morning the girl was less drowsy and was given 60 grm. of lactose followed by 20 units of insulin. The blood-sugar and the blood-urea were both 177 mgrm. The blood-pressure was now 116/90 Hg. and knee-jerks and ankle-jerks could be obtained. Sugar was found in the urine, but no trace of acetone by the Rothera nitro-prusside test was found in this or any subsequent specimen. Centrifuged deposit of the urine showed many granular and hyaline casts.

Lumbar puncture showed a pressure of 240 mm. cerebro-spinal fluid. 30 c.c. of yellowish cerebro-spinal fluid were withdrawn. The report on this was as follows:

Slightly brown, non-turbid fluid; no clot.

Albumen: 84 mgrm. %.

Globulin: +.

Sugar (Fehling's), slight reduction.

Cells: Red blood-cells about 4258 per c.mm.; white blood-cells 16 per c.mm.

A further lumbar puncture was done the next day, but no change was observed. The patient was now out of coma, but it was noticed that the fifth toe of the right foot showed a blackened area.

Three days after admission the patient was much brighter, the blood-sugar was 230 mgrm., but the area of gangrene of the toe showed a slight increase.

The patient continued to make good progress. Two weeks after admission the gangrenous area began to shrink. A report on a centrifugal deposit of urine showed less than 3 casts per two thirds field. The urine, however, was not yet sugar-free.

Dr. Graham (1) has described a similar case in a boy, *æt.* 16. The hyperglycæmia, however, was much more severe, being 760 mgrm.; the urine showed a negative Rothera. It is interesting to note that on the fifth day of the disease the urine showed a positive Rothera, whereas in the present case this test has always been negative except for a faint positive on the day of admission.

Dr. A. C. Begg (2) divides cases of diabetic coma into two groups: (1) Patients with acidosis. These can usually be treated successfully with insulin. (2) Cases where there is no acidosis. The blood-urea is high and there is little urine which contains no acetone. The prognosis is grave. Of eight cases of this type treated by Begg, seven died of anuria. He suggests that the symptoms are due to some defective action of the kidney, and that cases of this kind should be classified as "anuric diabetic coma".

W. W. Payne and E. P. Poulton (3) describe a series of 11 cases of diabetic coma. One of the cases (No. 8 in the series) showed no acetone or sugar in the urine. This case is interesting in the present connection because a lumbar puncture was done, and the report on the cerebro-spinal fluid was as follows:

Sugar: Nil.

Acetone: Strong positive by Rothera test.

Urea: 0.15%.

Cells: Nil.

Protein: 0.05%.

The authors suggest that all cases of diabetic coma have renal insufficiency in varying degrees. They also put forward the suggestion that all Begg's cases were acetonaemic, but that the kidneys failed to excrete acetone bodies.

K. E. Appel and D. A. Cooper (4) describe five cases of diabetic acidosis with a low carbon dioxide content of the blood-plasma and a negative reaction of the urine in the ferric chloride test. In all these cases there were increased blood-ketones. The authors suggest that these cases show a temporary renal impairment caused by dehydration.

It seems clear that the case described above belongs to that group in which diabetic coma is brought about by increased blood-ketones with an accompanying kidney lesion severe enough to prevent the excretion of acetone bodies. The gangrene is rare in a patient of this age, but it has been observed in even younger patients. There appears to be no obvious explanation for the changes observed in the cerebro-spinal fluid.

I have to thank Dr. A. E. Gow for permission to publish this case.

REFERENCES.

- (1) *St. Bartholomew's Hospital Reports* for 1929.
- (2) *Lancet*, 1925, ii, p. 69.
- (3) *Ibid.*, 1925, ii, p. 638.
- (4) *Amer. Journ. Med. Sci.*, 1927, clxxiii, p. 201.

A. BARLOW.

OUR LIBRARY.

(Continued.)

The fittings and furnishing of the Library have undergone changes since 1880. Gas has given place to electricity, and the brackets on the pillars of the alcoves, which added to the sombreness of the subdued lighting, have disappeared. Replaced, too, are the radiators, with their massive coverings making up in appearance what they lacked in warmth. A covering of linoleum over the bare floor and, later still, the addition of carpets, have mitigated the sound of footsteps, which at one time was incessant.

The allocation of the alcoves for the books remains unaltered although, naturally, there is some over-flowing. Medicine and Surgery were each allotted two alcoves and, with superb impartiality, the allied sciences were each allotted one, with one for general literature. There was also one alcove for the books written by St. Bartholomew's men. Surely modesty could go no further. Already the *Athenæ* section has burst its bounds, and would have done so long since had every *alumnus* who had crystallized in a book the knowledge

he had gained within its walls had deposited a copy in this shrine of his *alma mater*.

Viewing the *Athenæ* section from a purely chronological standpoint, it is disappointing to observe that there are so few books of a comparatively early period, and fewer still first editions.

The reprinted *Treatises of Fistula in Ano, Hæmorrhoids, and Clysters* by John Arderne, the fourteenth-century surgeon, find a place in this collection because they were edited, with introduction and notes, by Sir D'Arcy Power. The reprint was published in 1910.

The first book we have in order of publication by a St. Bartholomew's man is Timothy Bright's *Abridgement of Foxe's Book of Acts and Monumentes of the Church*, which was published in 1589. There is also a reprint of the same author's *Characterie: an arte of shorte, swifte and secrete Writing by Character*, which was made in 1888 in celebration of the tercentenary of the publication of the original. The original, dated 1588, is extremely rare, and as the reprint was limited to one hundred copies, this also cannot be common. Bright was the third physician to be appointed after the re-foundation of the Hospital. He resigned in 1590, abandoned medicine and assumed Holy orders. He wrote several other books but these are not in the Library. Bright is accredited by many with the invention of modern shorthand.

Bright's *Abridgement*, however, was not the first book to be published by a St. Bartholomew's man after the re-foundation. This honour belongs to Thomas Vicary's *Anatomie*. Vicary's book is of interest because it is said to be the first book on anatomy written in English, but it is of still greater interest because of the mystery attaching to it.

Those who are acquainted with the history of the Hospital will recall that in 1537, the year following the passing of the Act for the dissolution of the Monasteries, its property was confiscated. The obvious effect of the dissolution was to throw on the streets all those sick and distressed persons who had hitherto relied upon the benefactions of the monasteries. This state of affairs led the Mayor, Aldermen and Commonalty of the City of London to petition the king that certain institutions, of which St. Bartholomew's was one, should be handed over to them. It was not, however, until 1544 that Henry VIII granted letters patent for the re-constitution of St. Bartholomew's under the control of a master, a vice-master, a curate, a hospitaller and a visitor of the prisoners in Newgate. This constitution did not prove satisfactory, and in 1546 St. Bartholomew's was handed over to the City of London with certain endowments. A new constitution was drawn up and is fully set out

in *The Orders and Ordinances for the Better Government of the Hospitall of Bartholomew the lesse*, mentioned previously. Under this constitution the Hospital was to be administered by Governors who were to have under them various officers, amongst whom, "as in a kinde by themselves", were three chirurgeons. In 1548 Vicary, who was Surgeon to the King and Master of the Company of Barber Surgeons, was appointed a Governor, and soon after became resident, although there is some doubt as to whether he really practised as a surgeon in the Hospital. The three surgeons, who would appear to have been appointed in 1549, were, however, placed under his direction.

The *Anatomie* is said to have been first published in 1548, but no copy of this edition has actually been traced. There seems little doubt, however, that an edition was published in Vicary's lifetime. He died in 1561 or 1562.

In 1577 it was reprinted, and issued by William Clowes, Wil. Beton, Richard Story and Edward Bayley, the then surgeons of the Hospital. The book is described as "A profitable Treatise of the Anatomie of mans body: Compyled by that excellent Chirurgion, M. Thomas Vicary, Esquire, Serjaunt Chirurgion to king Henry the eyght, to king Edward the vi, to Queene Mary and to our most gracious Sovereigne Lady Queene Elizabeth, and also cheefe Chirurgion of S. Bartholomewes Hospital". Several other editions of the work subsequently appeared.

The work was unquestionably accepted as having been written by Vicary until Dr. J. F. Payne (*Brit. Med. Journ.*, 1896, i, p. 200) described a manuscript of the date 1392. This manuscript he showed was a compilation from several authors, but chiefly from Lanfrank and de Mondeville. He further pointed out, and it must be admitted conclusively, that Vicary's *Anatomie* bore so great a resemblance to the manuscript as to make it certain that, though abridged and altered slightly, it was still a transcript. It is also agreed that the anatomy portrayed the state of knowledge which prevailed in the fourteenth century, and did not take into account the great advances made in the science during the sixteenth century. It is therefore all the more strange that it should have been published at a time when the works of Vesalius, Mondini and Germinius were already in circulation.

Sir Norman Moore (*Lancet*, 1906, ii, p. 1325) emphasizes the great difficulty of isolating the original remarks of the writer from quotations of other writers in medical manuscripts of the Middle Ages. What, therefore, nowadays might lead to a charge of plagiarism would appear to have been quite excusable in earlier times. Certainly Vicary's eminence in his profession was more

than sufficient to ensure him a niche in the Temple of Fame without the somewhat uncertain aid of authorship.

Sir D'Arcy Power (*Selected Writings*, 1877-1930) discusses the points raised by Dr. Payne, and makes deductions which considerably modify his conclusions.

There are three copies in black letter of Vicary's *Anatomie* in the Library. Unfortunately they are all in some stage of imperfection. The most perfect is the 1641 edition, which has been rebound in calf. The edges are only slightly trimmed and the headlines are not cut into. The second is obviously the same edition, but the frontispiece, title-page, dedicatory epistle, prefaces to the reader and to "his Brethren, practising Chyrurgerie" and the table of contents are all missing. The binding of this copy has been extensively repaired. The third copy is bound up with Agrippa's *Vanitie of Sciences* and Almenar's *Treatise of the French Pocks*. All the pages which are missing in the second copy are missing in this also, as are several pages at the end. This, however, would appear to be an earlier edition than the others.

Both the *Vanitie of Sciences* and the *Treatise of the French Pocks* are imperfect, and the repairs to some of the pages affect the text. The great interest to us of this latter volume, which has only recently come into our possession, lies in the fact that Almenar's *Treatise* is obviously part of William Clowes's *A Prooved Practise for all young Chirurgians*. As mentioned above, Clowes was one of the surgeons responsible for issuing the 1577 edition of Vicary's *Anatomie*, and he was one of the first regular surgeons of the Hospital appointed after the re-foundation. He is usually referred to as William Clowes the elder, to distinguish him from his son William Clowes the younger, who was also a surgeon. It is a matter of great regret that none of Clowes's books are in the Library. It is little short of sacrilege, as well as a commercial folly, that Almenar's treatise should have been extracted, for it seems fairly certain that it formed part of the 1588 edition of *A Prooved Practise*. The actual pages in our possession are numbered 97 to 130.

The *Dictionary of National Biography* states that Almenar's treatise was a fresh edition of Clowes's *De Morbo Gallico*, and the date of *A Prooved Practise* is given as 1591. Sir Norman Moore in the *History of St. Bartholomew's Hospital* gives a list of Clowes's works in which *Translation of Almenar* appears. He also gives 1591 as the date of *A Prooved Practise*.

In the preface of the 1588 edition Clowes says: "Hereto is adjoynded a Treatise of the French or Spanish Pockes, written by John Almenar, a Spanish Physician, which treatise was delivered me by a good friend and well willer unto all the young practizers in

Chirurgery for whose sake he translated the same out of Latine into English and required me to publish it forthwith." This makes it quite clear that it was not translated by Clowes. Astruc says that the original was the first book on syphilis written in the Spanish language.

Another edition of *A Prooved Practice* was published in 1591. Sir D'Arcy Power describes the 1588 edition in No. 3 of his series, *Epoch-making Books in British Surgery*, which is in the Library.

A. H. COUGHTREY.

(To be continued.)

STUDENTS' UNION.

RUGBY FOOTBALL CLUB.

ST. BARTHOLOMEW'S HOSPITAL v. GUY'S HOSPITAL.

(From *The Morning Post*, by kind permission.)

In a first round match of the Hospitals Cup, St. Bartholomew's beat Guy's by a dropped goal and a try (7 points) to a try (3 points), after leading by 7 points to nil at half-time.

They owed their success to the vigorous determination and inexhaustible stamina of the forwards (who were without W. M. Capper), and the remarkable tackling of the whole side.

The Guy's outsiders are a formidable combination, but they were never given a chance to settle down and play their natural game. The opposition went off at a cracking pace, bumped everyone down with whole-hearted thoroughness, and stayed the long course with undiminished fury, to the huge delight of a multitude of supporters endowed with grand lungs and, again, inexhaustible stamina, before whose "B-A-R-T-S—Bart's," the most craven-hearted would have been stirred to valour.

Guy's Bad Luck.

Guy's were most unlucky in the matter of injuries. Alexander was carried off in great pain before half-time, but courageously came back. Soon after the interval Giesen slipped a cartilage and could take no further part in the game. To a side already busted completely out of their stride these misfortunes were doubly serious. Hale-Monro, who had been consistently prominent forward, went to full-back and emerged with distinction, Steytler coming up to stand-off half.

For the winners Darmady himself played a fine game, with Newbold the best forward on the field. Wilson was the most indefatigable worrier; Burrow did all sorts of useful things; Mundy . . . but why discriminate in a pack of all the talents? There was cleverness, as well as vigour, suggesting the instruction of some master mind, in a pack whose meeting with the St. Mary's hearties should be a battle in a thousand.

Kingdon, at stand-off, and his two centres set up an impregnable defence with flying tackles and fearless saving, but Nel alone was the serious danger to the opposition line. Even so, without Morison to beat Guy's must have won. His fielding, often at the feet of the Guy's forwards, and kicking placed him high among the full-backs of to-day.

Of the disorganized Guy's outsiders, it is a little difficult to speak. Stanyon-Jacques, at scrum-half, took most of the honours; Giesen made one or two typical thrusts; Fichardt, on the left wing, was extremely clever in making the most of his very narrow fairway; but from start to finish there was no combined movement. Forward, Kark and Hopkins did most in the losing battle of true traditional severity.

A Furious Pace.

The very nature of the scoring gives a vivid impression of the mobility and pace of this exciting game, which raged from one end of the field to the other, with Bart's always holding a little the upper hand, except during a Guy's rally in the second half.

Nel, the right wing, dropped the goal from 40 yards out after 17 minutes' play. Giesen had cut through, to be tackled by the Bart.'s stand-off, Kingdon. Newbold immediately started a dribble taken on by Burrow, who penetrated far into enemy country with the whole side in full chase. A despairing kick by the defence was caught by Nel moving at top speed far out on the right. Without appearing to steady himself he dropped at goal with a thud that could be heard all over the ground, and the ball soared between the posts.

The try came not long before half-time, when another breakthrough by Giesen again drew prompt reprisal. Guy's should have scored, for Wright, on the wing, was waiting with no one to beat, when a forward up with Giesen threw a wild pass anywhere. Kingdon gathered in the ensuing loose play and punted to the right corner-flag. The ball bounced backwards towards the fast-following Blusger, who, using his feet to fortune's gift, kicked over the line and beat the full-back for the touch down.

Guy's scored following a period of sustained pressure, which was interrupted by a burst by Darmady and Burrow, and resumed when Alexander went away very fast on the right and kicked across for Kark to lose a lonely duel with Nel. Scrummaging in the left corner followed, and Stanyon-Jacques forced his way over far out.

PETER LAWLESS.

Team.—C. R. Morison (*back*); J. G. Youngman, G. A. Fairlie-Clarke, I. N. Blusger, J. G. Nel (*three-quarters*); J. R. Kingdon, J. E. Miller (*halves*); E. M. Darmady, K. D. Moynagh, J. A. V. Nicoll, P. W. Swinstead, R. Mundy, J. C. Newbold, K. C. Burrow, J. D. Wilson (*forwards*).

Referee.—J. G. Bott.

ASSOCIATION FOOTBALL CLUB.

2nd Round Inter-Hospitals Cup.

ST. BARTHOLOMEW'S HOSPITAL v. UNIVERSITY COLLEGE HOSPITAL.

Played at Perivale on Wednesday, February 20th. Lost, 2—3.

For this game Bart.'s fielded the team which has performed so well this season. The weather was vile, continuous rain and a gale of wind rendering good football an impossibility. This is not offered as an excuse—Bart.'s were beaten by a better team. U.C.H. were much quicker on the ball, and with the Bart.'s defence at sixes and sevens in the first twenty minutes, won the game during this period.

Howell won the toss and chose to play with the wind. U.C.H. scored in the first three minutes. The ball went out to the right wing, Herbert misjudged his tackle, the ball was centred, and the inside left scored easily with McKane out of position. A blow, indeed, but worse was to follow. Within a few minutes a long shot at the Bart.'s goal hit the cross-bar, the ball re-bounded into play and was neatly headed in. Two goals down in ten minutes. From this time on Bart.'s held their own, and perhaps if they had been a little quicker and a little luckier they might have won.

Half-way through the first half Bloom was tripped in the penalty area and Howell scored with an excellent shot from the spot. Soon after Nicholson unaccountably missed an open goal, and U.C.H. went further ahead with a fine shot from the outside right.

Half-time: Bart.'s 1, U.C.H. 3.

The second half was an even struggle, first one side and then the other attacking. Bloom headed a good goal, and Nicholson got the ball into the net, but Bloom was given off-side.

Final score: Bart.'s 2, U.C.H. 3.

Thus Bart.'s hopes of retaining the Cup were dashed.

After that tragic first twenty minutes McKane was splendid, Howell and Cardwell played well, and of the forwards Carey and Brownlees were outstanding.

The players were honoured by the presence of Dr. Hurtle, who braved the weather to watch, what to him and to the players, must have been a very disappointing game.

Team.—T. O. McKane (*goal*); H. Knowles, G. Herbert (*backs*); W. A. Owen, D. R. S. Howell, J. L. Cardwell (*halves*); C. Nicholson, P. A. K. Brownlees, N. H. Bloom, C. J. Carey and R. C. Dolly (*forwards*).

Other Results.

Jan. 5: v. Old Monovians. Home. Drawn, 3—3.

„ 12: v. Gidea Park. Away. Won, 6—3.

„ 19: v. Old Bradfieldians. Home. Won, 2—1.

„ 26: v. Old Aldenhamians. Home. Won, 4—2.

„ 30: v. Balliol College. Away. Won, 4—3.

Feb. 2: v. Old Cholmelians. Home. Lost, 1—4.

„ 9: v. Southgate Wan. Away. Drawn, 2—2.

„ 16: v. Brighton Old Grammarians. Home. Won, 5—2.

The 2nd XI beat Middlesex Hospital at Wembley in the 2nd Round of the Junior Cup, 6—0. We hope they will retain the Cup. They are due to meet Guy's in the semi-final.

The Club Supper will be held at Pimm's Restaurant, Old Bailey, at 7 p.m. on Wednesday, April 10th. Tickets 3s 6d.

REVIEWS.

A SYNOPSIS OF REGIONAL ANATOMY. By T. B. JOHNSTON. Third edition. (J. & A. Churchill, Ltd., 1934.) Pp. xxiii + 460. Price 12s. 6d. net.

Since the publication of the third edition this book has gained an increased popularity among students of anatomy, and also among those about to take an examination in surgery requiring an elementary knowledge of anatomy. But there is a danger in this popularity—that the book will be used to serve a purpose for which it was not intended, *i. e.* for a text-book and not for revision. In the preface to each edition the author draws attention to the object for which it was written—"to assist the average student in his work of revision only." Further, at the beginning of each section emphasis is laid on using the book in conjunction with a "part" either dissected or in the process of being dissected, together with the bones forming the skeleton of the part. When the book is used in this capacity it serves a very useful purpose—that of refreshing the memory of facts which have been gradually accumulated, and, from the student's point of view, enables him to reproduce those facts at an examination. Unfortunately, the use of the book by the student is not thus limited, for it is frequently used as a text-book while dissecting a part for the first time.

The new section on Osteology consists of a *résumé* of the most important features of the various bones: it is clearly arranged, and, provided the student has a good basis of knowledge, would cover most of the questions that he is likely to be asked in a pre-clinical examination in anatomy. The whole section is contained in less than fifty pages, and is a series of statements rather than a description of the bones; thus the account of the vertebræ assumes a knowledge of the component parts of a single vertebra, and limits itself to a method of distinguishing the various segments from one another.

The references to the development of the organs have been increased in number, but remain extremely brief; however, they adequately serve the function intended by the author—that of reminding students of embryological knowledge obtained from previous study of the subject.

Although the book would not be complete without a section on the central nervous system, the greater part of this section cannot be read under the same conditions as the other sections, *i. e.* with a part under dissection to which to refer, for it includes a description of the main tracts and connections of the various nuclei; to produce a section which acts as a complete revision of the central nervous system, including the meninges, the eye and the ear on seventy pages is an impossible task, so that this section is of less value than the others. The revised arrangement of this section in the third edition, however, is an improvement on that in the second.

The type is clearly printed on good paper and errors in the print impossible to find. That the sale of this book will remain very large is almost certain, but it is sincerely hoped that its use will be restricted to revision, particularly to revision before an examination.

A TEXT-BOOK OF GYNÆCOLOGICAL SURGERY. By SIR COMYNS BERKELEY, M.D., F.R.C.S., and VICTOR BONNEY, M.B., F.R.C.S. Third edition. (London: Cassell & Co., Ltd., 1935.) Price 45s.

After five years this book has been revised, necessitating a complete set of new illustrations, with numerous additions and the rewriting of practically all the text.

The book is concerned wholly with the operative side of gynæcology, and gives a detailed account of the technique and methods employed by the authors, whose reputations as operative gynæcologists is so great that it is unnecessary to stress the value of the volume further.

There is set forth, in detail, the indications for gynæcological operations, the pre-operative preparation, the operative technique,

the post-operative treatment, and the dangers to be avoided, with the possible complications and their appropriate treatment.

The first five chapters are devoted to general operative considerations, surgical technique, operating theatre and appointments, operations in private houses, and examination and preparation of the patient. In these chapters there is a wealth of information for those who are and hope to be specialists in the subject. There are 847 pages, but only a selection of the possible operations in certain conditions are included as the best methods to adopt in the opinion of the authors. Chapter XVII contains an excellent exposition on abdominal myomectomy, and is preceded by a chapter on the operation for carcinoma of the cervix, and the Wertheim's hysterectomy only is described. Treatment by radium is only mentioned twice, as a preliminary to operation in carcinoma of the cervix, and as a method of treatment in pregnancy complicated by carcinoma of the cervix.

There is a long section on opening and closing the abdominal cavity, the authors assume that a mid-line subumbilical incision is the correct one and the paramedian incision is dismissed with the statement that some surgeons use it apparently under the impression that the resulting scar is stronger, but there is no ground for such an assumption.

The description of plastic operations on the vagina is easy to understand and beautifully illustrated.

The descriptions in this book are uniformly excellent, and the illustrations and 17 colour plates could not be more clear.

This book should be studied by all who are interested in gynaecological surgery as a speciality or who may be called upon to perform gynaecological operations and yet have not had the opportunity of perfecting their technique by long practice in the gynaecological theatre and wards of a large hospital.

ANÆSTHESIA IN LABOUR. By **LOYD WILLIAMS.** (Edward Arnold & Co., 1934.) Price 5s. net.

We must congratulate Dr. Lloyd Williams on a thorough record of the various methods of premedication and anaesthesia used in labour. If we dare be critical of so concise a little book, we would suggest that the practitioner and the student both need a definite suggestion as to which method is recommended for general use. So completely are the various techniques dealt with that the reader is left rather uncertain as to which to use. If Dr. Lloyd Williams had given a lead from her evidently considerable experience, and had indicated what she considered the best all-round method, this useful book would have become super-excellent. We also feel that she has been rather hard on McKesson's apparatus, and would suggest that McKesson's ordinary machine is superior for obstetric use to the one recommended for that purpose. In our experience over a considerable number of years, the McKesson has proved a most useful apparatus, for one can give 100 per cent. oxygen with the admixture of CO₂ if required, whereas with his small machine the oxygen content, as pointed out, is only 50 per cent.

Whilst in critical mood, we should also like stressed more strongly the fact that repeated administrations of chloroform over a short period produce chloroform poisoning very readily indeed.

With regard to Casarean section, we feel strongly on the subject. Dr. Lloyd Williams states that morphia and hyoscine may be given beforehand. We would go further than this, and say that no premedication of any kind should be given before a Casarean section if anxiety for the child is to be avoided.

On the whole, an excellent book, thoroughly to be recommended to both practitioner and anaesthetist.

THREE PHILOSOPHERS (LAVOISIER, PRIESTLEY AND CAVENDISH). By **W. R. AYKROYD.** (Heinemann.) Price 10s. 6d.

This is a book of more than passing interest; it tells, it is true, of Cavendish, "the wealthy and gifted eccentric"; of Priestley, the religious enthusiast, who had his house burnt for his pains, and of Lavoisier, the tax-collector, the victim of the French Revolution. The story of his death is well and simply told, but the book is more than good biography. The author has chosen his title well; each of these men deserved the name of philosopher, and none more than Lavoisier. He surely approached very near to the Platonic ideal of philosophy, for he conceived of science not as a means of accumulating useless knowledge, but as a practical instrument to be used "to obtain for all social classes pleasure and happiness in greater abundance". The illustrations are excellent, the type is attractive, and the book is a pleasure to read.

SURGERY AND SURGICAL NURSING. By **MICHAEL BULMAN, M.D., M.S., F.R.C.S.** (Faber & Faber.) Price 10s. 6d.

This book provides nurses with a description of methods, chiefly helpful from a practical standpoint, but at the same time covering the syllabus in surgery and gynaecology of the General Nursing Council. It will be greatly appreciated by those requiring help with state registration problems.

The several conditions dealt with are described in the matter of symptomatology, pathology, diagnosis and treatment, but in places the lack of detail and brief explanation is surprising in a book so advanced. The stress laid on the psychological teaching so essential in the treatment of every case is a welcome feature of the book, which is very well set out and much to be recommended.

THE TREATMENT OF COMMON FEMALE AILMENTS. By **FREDERICK JOHN MCCANN.** 3rd edition. (London: Edward Arnold & Co.) Price 12s. 6d.

This book was written as a guide to the general practitioner in the treatment of common ailments peculiar to the female sex. The fact that it has reached a third edition is in itself proof that this book has justified the reasons for which it was written.

It is a practical book; all the multitude of gynaecological complaints likely to be encountered are dealt with faithfully, and useful advice is given in all cases. It is fully up to date, due attention being paid to recent work on endocrinology, and new chapters have been written on contraception, fertility and sterility. As this book is written to give advice about cases which often prove the most difficult to treat, it is to be recommended, and will prove of real value to its possessors.

CORRESPONDENCE.

POST-OPERATIVE VOMITING.

To the Editor, 'St. Bartholomew's Hospital Journal'.

DEAR SIR,—It would be an obvious and not very profound statement to say that the vast majority of major operations, in this Hospital at any rate, are carried out under gas, oxygen and ether anaesthesia.

Some weeks ago I attended a very excellent lecture on anaesthesia, and the lecturer stated that when a patient had had ether, he liked to see him vomit up the ether-contaminated mucus from his stomach before he left the operating theatre. Speaking from personal experience, the so-called normal vomiting after ether anaesthesia is quite the most unpleasant part of, at any rate, an abdominal operation from the patient's point of view. The idea that the patient usually vomits before he is conscious and remembers nothing about it is untenable, not only from a personal viewpoint, but from the interrogation of a large number of patients.

When an event has occurred for many years, and especially if that event is merely unpleasant and not usually dangerous, the average person is apt to let what has been remain, and had it not been for a by no means vast series of two consecutive cases, this letter would not have been written. In both of these cases the ether was turned off when the surgeon started to sew up the skin. Also in both of these cases the surgeons sewing up the skin were privileged surgical dressers and, not having had much experience, their methods, although excellent, were definitely slow. By the time the bandage had been put on, all traces of ether from the patients' breath had disappeared, and their corneal reflexes had returned. But more important than this, neither patient vomited, and on being asked in the morning what they thought of operations, considered them to be rather an amusing joke (which would be one objection to attempting to prevent ether-vomiting).

Theoretically there are two objections to "blowing out" the ether under gas anaesthesia. First, it is difficult to see how this is going to prevent the stomach mucus from continuing to be ether-laden, to which the only answer is that in the series no patient had gastric discomfort by not vomiting. Secondly, sewing up and bandaging took rather longer than normally, and it is of course important that there should be flaccidity when the muscular layers, etc., are being sewn. With practice, however, and the judicious use of CO₂, could not a great deal of discomfort be avoided?

Yours etc.,

C. R. MORISON.

COLLEGE APPEAL FUND.

SUBSCRIPTIONS TO DATE.

	£	s.	d.	*
Staff	12,827	15	10	(72)
Demonstrators	1,721	11	0	(69)
Students	881	9	3	(298)
Old Bart.'s men:				†
‡Bedfordshire	25	3	6	(7)
‡Berkshire	123	3	0	(16)
‡Buckinghamshire	82	4	0	(15)
‡Cambridgeshire	193	16	0	(18)
‡Cheshire	6	16	6	(3)
‡Cornwall	31	11	0	(8)
‡Cumberland	5	0	0	(1)
‡Derbyshire	19	14	0	(4)
‡Devonshire	571	18	0	(53)
‡Dorset	52	11	6	(14)
‡Durham	17	7	0	(4)
‡Essex	251	0	6	(20)
‡Gloucestershire	238	7	6	(27)
‡Hampshire	456	3	0	(49)
‡Herefordshire	17	12	0	(4)
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‡Northumberland	101	1	0	(2)
‡Nottinghamshire	19	19	0	(3)
‡Oxfordshire	219	3	0	(21)
‡Rutland				(2)
‡Shropshire	36	10	0	(9)
‡Somersetshire	1,180	3	0	(28)
‡Staffordshire	193	17	0	(5)
‡Suffolk	324	4	0	(25)
‡Surrey	475	5	6	(56)
‡Sussex	432	3	6	(60)
‡Warwickshire	184	7	6	(20)
‡Westmorland	2	10	0	(1)
‡Wiltshire	110	11	0	(12)
‡Worcestershire	158	19	6	(24)
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‡Wales	67	10	0	(18)
‡London	7,483	0	8	(197)
‡Channel Islands	20	0	0	(2)
‡Scotland	15	5	0	(5)
‡Abroad	114	1	0	(13)
‡South Africa	362	15	6	(19)
‡Canada	114	3	6	(8)
‡East Africa	87	12	0	(10)
‡West Africa	146	10	0	(5)
‡India	203	2	0	(12)
‡Ireland	25	4	0	(4)
‡North Africa	1	0	0	(1)
‡North Borneo	5	5	0	(1)
‡Australia	122	2	0	(6)
‡China	52	8	4	(9)
‡Siam	10	0	0	(1)
‡France	50	0	0	(1)
‡British West Indies	50	8	0	(5)
‡Straits Settlements	7	1	0	(3)
‡New Zealand	6	1	0	(3)
‡Services	642	2	6	(46)
‡Others	33,296	6	5	(349)
Lord Mayor's Appeal	17,990	16	0	
Funds of College	8,000	0	0	
Value of Building	20,000	0	0	
	£111,965	2	6	

* Number of Bart.'s men subscribing. † Number of Bart.'s men in County. ‡ Counties with Secretaries.

RECENT BOOKS AND PAPERS BY ST. BARTHOLOMEW'S MEN.

- ATKINSON, E. MILES, M.B., F.R.C.S. "The Early Diagnosis of Abscess of the Brain." *Clinical Journal*, January, 1935.
- BERTWISTLE, A. P., M.B., Ch.B., F.R.C.S.(Edin.). "Juvenile Circumcision." *Lancet*, January 12th, 1935.
- BROWN, Sir WALTER LANGDON, M.D., F.R.C.P. "We have reason to Think . . ." *British Medical Journal*, January 5th 1935.
- CHANDLER, F. G., M.D., F.R.C.P. "Pleurisy." *British Medical Journal*, December 29th, 1934.
- CHOPRA, R. N., M.D., I.M.S. (and GHOSH, S.). "Some Common Indigenous Remedies." *Indian Journal of Medical Research*, October, 1934.
- (and CHOWHAN, J. S., and DE, N.). "Biological Assay of Digitalis Preparations in the Tropics. Part IV." *Indian Journal of Medical Research*, October, 1934.
- (and CHOROHAN, J. S., and SARDARI LAL). "Biological Assay of Digitalis Preparations in the Tropics. Part V: Potency of Lanadigin (Glucoside of *D. lanata*) and its Relation to the Standard Digitalis Powder (B.P. 1932)." *Indian Journal of Medical Research*, October, 1934.
- (and GHOSH, S., and DUTT, A.). "Some Inorganic Preparations of Indian Indigenous Medicine. Part I: *Abhra Bhasma*." *Indian Journal of Medical Research*, October, 1934.
- ELAM, JOHN, M.R.C.S., L.R.C.P. "Advantages of Nitrous Oxide and Air Analgesia in Midwifery." *British Medical Journal*, December 29th, 1934.
- FRASER, FRANCIS R., M.D., F.R.C.P. See Gillies and Fraser.
- GARROD, LAWRENCE P., M.R.C.P. "Laboratory Testing of Disinfectants." *British Medical Journal*, January 5th, 1935.
- GILLIES, Sir HAROLD, F.R.C.S., and FRASER, FRANCIS R., M.D., F.R.C.P. "Treatment of Lymphædema by Plastic Operation." *British Medical Journal*, January 19th, 1935.
- GRAHAM, GEORGE, M.D., F.R.C.P. "Prognosis of Diabetes Mellitus in Adults." *Lancet*, January 19th, 1935.
- HAMILL, P., M.D., D.Sc., F.R.C.P. "Favourite Prescriptions. I: The Pharmacopœia of St. Bartholomew's Hospital." *Practitioner*, January, 1935.
- HAMMOND, T. E., F.R.C.S. "Protein- and Chemo-therapy in Genito-Urinary Tuberculosis." *Tubercle*, January, 1935.
- HARMER, W. DOUGLAS, M.C., F.R.C.S. "Treatment of Malignant Disease in the Upper Jaw." *Lancet*, January 19th, 1935.
- NAISH, A. E., F.R.C.P. (H. E. HARDING, D. M., and A. E. N.). "Mixed Tumours of the Brain." *Lancet*, January 12th, 1935.
- O'CONNELL, J. E. A., M.B., B.S., F.R.C.S. "Some Observations on the Cerebral Veins." *Brain*, December, 1934.
- RAVEN, R. W., F.R.C.S. (and HARE, A. E. C., Ph.D.). *Preliminary Report on Radium Treatment in Cancer of Certain Sites: Appendix to the Fifth Annual Report of the National Radium Commission*. London: H. M. Stationery Office, 1934.
- ROLLESTON, Sir HUMPHRY, Bart., G.C.V.O., K.C.B., M.D., F.R.C.P. Address at the Opening of the Radiological Congress and Exhibition. *British Journal of Radiology*, January, 1935.

EXAMINATIONS, ETC.

University of London.

M.D. Examination, December, 1934.

Branch I (Medicine).—Hubble, D. V., Knox, R., Payne, R. T., Scowen, E. F.

Branch III (Psychological Medicine).—Shaw D.

Conjoint Examination Board.

Pre-Medical Examination, January, 1935.

Chemistry.—Silcock, A. R., Thomson, T. G. L.

Biology.—James, C. T. A., Marrett, H. R., Owlett, R., Rochford, J. D.

First Examination, January, 1935.

Anatomy.—Gluckman, J., Hanbury-Webber, R., Harrison, G. J., Hill, P. G., Knowles, H., Mundy, M. L., Perrott, J. W., Stoker, G. E., Taylor, L. R., Williams, W. R.

Physiology.—Halper, N. H., Hill, P. G., Jackson, K. V., Mundy, M. L., Taylor, L. R., Webb, C., Welply, R.

Pharmacology.—Alexander, L. L., Beizer, L. S., Gardiner, L. E., Gomez, A., Horner, W. M. L., Howell, D. R. S., Mitchell, J. G., Richards, G. A., Schiller, M., Weiner, H., Witt, R. C.

Final Examination, January, 1935.

The following have completed the Examinations for the Diplomas of **M.R.C.S., L.R.C.P.:**

Anderson C., Barber, D. S. D., Blackburn, G., Bohn, G. L., Botha, B. B., Brodribb, H. S., Casson, A. H., De Freitas, A. J. S., Evans, D. M., Hayward, G. W., Hinds Howell, C. A., Houghton, P. W., Hynes, H. T. J., Liberton, W., McGladdery, H. M., Masina, F. H., Nash, D. F. E., Sansom, S. V., Youngman, J. G.

L.M.S.S.A.

Primary Examination, January, 1935.

Anatomy and Physiology.—Berman, B.

Final Examination, January, 1935.

Midwifery.—Palmer, T. I.

CHANGES OF ADDRESS.

BARROW, R. MURRAY, Walton Mount, Stone, Staffs.

BETT, W. R., 630 West 168th Street, New York.

BRINTON, R. D., 37, Argyll Road, Kensington, W. 8. (Tel. Western 3760.)

CHILTON, N., Colne Engaine Rectory, Earl's Colne, Essex.

HUNT, W., 24, Station Road, Carlton, Notts. (Tel. 58198.)

JACKSON, J. M., 1, Petersham Road, Petersham, Surrey.

LANE, C. R. T., 20, Upper Wimpole Street, W. 1. (Tel. Welbeck 3640.)

MILES, A. ASHLEY, 17, Lansdowne Crescent, W. 11. (Tel. Park 4367.)

OLDFIELD, J., 5, Essex Court, Temple, E.C. (Tel. Central 3634.)

APPOINTMENT.

BETT, W. R., M.R.C.S., L.R.C.P., appointed Medical Librarian, Columbia University, in the City of New York.

BIRTHS.

BRADSHAW.—On January 31st, 1935, at Carrick Grange, Sevenoaks, to Peggy, wife of George Bradshaw, F.R.C.S.E.—a daughter.

CLARKE.—On December 16th, 1934, at Pretoria, South Africa, to Phillis, wife of B. Maule Clark—a daughter (Elizabeth Mary).

CULLINAN.—On February 7th, 1935, at The Tower, Hampstead, to Joy, wife of Dr. Edward Cullinan—a son.

DARLEY.—On February 12th, 1935, at Addiscombe, Croydon, to Sibyll, wife of Dr. W. Ward Darley—a son (Anthony Russell).

EDELSTEN.—On January 29th, 1935, at Sutton Scotney, Hants, to Peggy, wife of Dr. Geoffrey Edelsten—a son.

HANCOCK.—On February 13th, 1935, at Fourwinds, Stoke Mandeville, Bucks, to Estelle (*née* Derouet), wife of Dr. F. R. Thompson Hancock—a daughter.

HOBDAV.—On February 13th, 1935, at 32A, Trebovir Road, Earl's Court, to Sczerina Nfomi, wife of Dr. F. T. J. Hobday—a son.

POLLARD.—On January 30th, 1935, to Honor, wife of Surgeon Lieutenant-Commander E. B. Pollard, R.N., of Gillingham House, Gillingham—a daughter (stillborn).

WHITING.—On February 23rd, 1935, at Sudbury, Suffolk, to Elwina, wife of Dr. J. S. Whiting—a son.

MARRIAGES.

BROOMHEAD—HOLLIDAY.—On February 8th, 1935, at Brunswick Methodist Church, by the Minister, the Rev. Leslie D. Weatherhead, M.A., assisted by the Rev. J. Chalmers Lyon, of London, Reginald Broomhead, M.B., F.R.C.S., only son of Mr. and Mrs. J. Broomhead, Braeside, Allerton Avenue, Leeds, to Phyllis Lilian Holliday, B.A., B.Chir., younger daughter of Mr. and Mrs. Fredk. Holliday, Forest Hill, Roundhay, Leeds.

BUTCHER—RINALDI.—On February 9th, 1935, at Mariastein, Surgeon-Commander Walter Herbert Butcher, M.D., R.N.V.R., to Marie, elder daughter of A. Rinaldi and of Frau Rinaldi, of Schönenwerd, Soleure.

HARRISON—ROMNEY.—On February 25th, 1935, at Folkestone, Sidney Gilbert Harrison (of the West African Medical Service), son of the late Mr. E. S. Harrison and Mrs. Harrison, to Elsie Ada Romney, daughter of the late Mr. W. Romney and Mrs. Romney, of 5, Wear Bay Crescent, Folkestone.

DEATHS.

FREER.—On February 3rd, 1935, Gerald Dudley Freer, M.B.(Lond.), late of the F.M.S. Medical Service, third son of the late Leacroft Freer, of Pedmore, Worcestershire, aged 67.

HUGHES.—On February 20th, 1935, suddenly, at Roe Street House, Macclesfield, John Brierley Hughes, M.B.E., M.A., M.B.(Cantab.).

WATTS.—On February 1st, 1935, at "The Little House", St. Andrew's Road, Bridport, Harry John Manning Watts, M.R.C.S., L.R.C.P., J.P. (late of Tonbridge), aged 73.

NOTICE.

All Communications, Articles, Letters, Notices, or Books for review should be forwarded, accompanied by the name of the sender, to the Editor, ST. BARTHOLOMEW'S HOSPITAL JOURNAL, St. Bartholomew's Hospital, E.C. 1.

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